# A Federal-Provincial Approach to Water Quality Monitoring

**Andrea L. Ryan[1] and Les Swain[2]**

[1]Department of the Environment, 201-401 Burrard Street, Vancouver, British Columbia, Canada V6C 3S5
[2]British Columbia Ministry of Water, Land and Air Protection, PO Box 9341 Stn. Prov. Govt., Victoria, British Columbia, Canada V8W 9M1

**Biographical Sketches of Authors**

Andrea Ryan is an Environmental Monitoring Scientist in the Aquatic and Atmospheric Sciences Division of the federal Department of the Environment, Pacific and Yukon region. Since 1990, Andrea has been involved in the Canada-British Columbia Water Quality Monitoring Agreement and currently serves as one of the Agreement Coordinators along with coauthor Les Swain from the Government of British Columbia. Andrea participates in many multiagency committees including the Columbia River Integrated Environmental Monitoring Program, Columbia River Transboundary Gas Group and the Quality Assurance Working Group.

Les Swain is the Water Quality Network Specialist for British Columbia Ministry of Water, Land and Air Protection. He has worked in the environmental field for 32 years. During that time, Les has sampled lakes and rivers in all areas of Manitoba and British Columbia, performed water quality assessments on major river systems, chaired a western Canada Committee to develop target loadings for acidic inputs, and developed a water quality index for BC (later adapted for use in all Canada) to interpret water quality information for the public. Les has been Chair of the CCME Water Quality Task Group, BC co-chair for the Puget Sound/Georgia Basin International Task Force and co-chair of the Columbia River Transboundary Gas Group.

**Abstract**

The Canada-British Columbia Water Quality Monitoring Program is a model of how effective partnership and collaboration can be in delivering a successful, sustainable monitoring program. In 1985, the federal Department of the Environment and the British Columbia Ministry of Water, Land and Air Protection signed an Agreement to coordinate and integrate federal and provincial monitoring, and produce joint, comprehensive assessments of water quality. The current program consists of 35 long-term ambient monitoring stations located on rivers of mutual jurisdiction. Most sites are sampled every two weeks for a range of water quality variables, including trace metals, nutrients, major ions, fecal coliforms, and other variables of site-specific importance.

Although the program is primarily designed to detect long-term changes in water quality, the data are used for a variety of other purposes, including determination of the state of water quality and ecosystem health, formulation of and assessment of compliance with water quality guidelines and objectives, and detection of emerging issues.

The Agreement's vision of coordination, integration, and reporting has been achieved. This has resulted in considerable cost savings for both parties, flexibility and synergy to accomplish much more than either party could achieve alone, and led to program sustainability through periods of fiscal restraint. Further benefits include improved quality assurance, standardized methods, and increased collaboration on other projects and studies. Public awareness of the program and water quality issues in the region has recently become heightened through the development of our regional water quality website (www.waterquality.ec.gc.ca), which allows on-line access and graphing of the data collected under the Agreement.

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